

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/11976

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D213/64 - C07D213/74 - C07D231/38 - C07D239/42 - C07D241/20
 C07D261/14 - C07D277/42 - C07D401/12 - C07D401/10 - C07D403/12
 C07D403/10 - C07D401/04 - C07D401/14 - C07D405/10 - A61K31/415

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 323 842 A (FERRING BV) 7 October 1998 (1998-10-07) pages 26-28: in particular formulae 7,9,10, page 62 (claim 4): 5th and 11th compound	1-4
X	WO 02 40008 A (GONZALEZ MARIA ISABEL ;GRAAF PIETER HADEWIJN V D (GB); PINNOCK ROB) 23 May 2002 (2002-05-23) Scheme 3 (page 40), intermediate compounds 7: examples 21 and 23	1-4
X	WO 96 33972 A (GLAXO GROUP LTD ;GORDEEV MIKHAIL F (US); PATEL DINESH V (US)) 31 October 1996 (1996-10-31) entry 7 in figure 10 (page 81, example 63), components 1-3,10-12,15,16 on page 85 (example 64)	1-4
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the international search

27 January 2004

Date of mailing of the international search report

11 02 2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Hanisch, I

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Application No
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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/42 A61K31/426 A61K31/4418 A61K31/4965 A61K31/505
A61K31/506 A61K31/5377 A61P13/00

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/058606 A1 (GONZALEZ MARIA ISABEL ET AL) 16 May 2002 (2002-05-16) Intermediate 6b in scheme 2 (page 16) ---	1,2
P,X	WO 02 096933 A (NOVARTIS ERFIND VERWALT GMBH ;GUAGNANO VITO (CH); NOVARTIS AG (CH)) 5 December 2002 (2002-12-05) Scheme 1: B, example 1(a) (page 39), example 13, step 13.2 (page 45) --- -/--	1,2

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° Special categories of cited documents :

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Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hanisch, I

INTERNATIONAL SEARCH REPORT

Application No
PCT/EP 03/11976

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TERANISHI K: "Effect of conformation on the chemiluminescence efficiency of light-producing 2-methyl-6-(4-methoxyphenyl)imidazo[1,2-a]pyrazin-3(7H)-ones" LUMINESCENCE, WILEY, CHICHESTER, GB, vol. 16, 2001, pages 367-374, XP009024709 ISSN: 1522-7235 Intermediate compounds 7b-7e in scheme 2 ---	1
X	US 4 259 489 A (TAKEMATSU TETSUO ET AL) 31 March 1981 (1981-03-31) claims 1-6; examples 191-195, 218, 225, 234, 235, 239, 258; table 1 ---	1
X	DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; XP002268153 RNs 209982-89-8, 209982-90-1 & WO 98 28268 A 2 July 1998 (1998-07-02) --- to be scanned	1
X	WO 00 43372 A (SEMKO CHRISTOPHER ; THORSETT EUGENE D (US); ASHWELL SUSAN (US); KRE) 27 July 2000 (2000-07-27) page 70, line 4 - line 26; claims 50, 73, 74; example 111 ---	1, 9-22
Y	page 70, line 4 - line 26; claims 50, 73, 74; example 111 ---	2-8
X	WO 01 68591 A (HOFFMANN LA ROCHE) 20 September 2001 (2001-09-20) page 11, line 5 - page 12, line 3; claims 1, 5, 6, 25, 26, 31; example 6 -----	1, 9-22
Y	page 11, line 5 - page 12, line 3; claims 1, 5, 6, 25, 26, 31; example 6 -----	2-8

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claim 22 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

INTERNATIONAL SEARCH REPORT

Information on patent family members

Application No
PCT/EP 03/11976

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2323842	A	07-10-1998	AU 6927198 A	30-10-1998
			WO 9845266 A1	15-10-1998
WO 0240008	A	23-05-2002	WO 0240022 A1	23-05-2002
			AU 1404601 A	27-05-2002
			AU 2380202 A	27-05-2002
			BR 0017374 A	30-09-2003
			BR 0115364 A	23-09-2003
			CA 2426521 A1	23-05-2002
			CA 2429106 A1	23-05-2002
			EP 1333829 A1	13-08-2003
			EP 1333824 A2	13-08-2003
			WO 0240008 A2	23-05-2002
			HU 0301892 A2	28-11-2003
			AU 2097702 A	24-06-2002
			CA 2431747 A1	20-06-2002
			EP 1347750 A1	01-10-2003
			WO 0247670 A1	20-06-2002
			US 2003119714 A1	26-06-2003
			US 2002169101 A1	14-11-2002
WO 9633972	A	31-10-1996	AU 5918096 A	18-11-1996
			WO 9633972 A1	31-10-1996
US 2002058606	A1	16-05-2002	US 2002169101 A1	14-11-2002
WO 02096933	A	05-12-2002	WO 02096933 A1	05-12-2002
US 4259489	A	31-03-1981	JP 54098332 A	03-08-1979
			JP 54098333 A	03-08-1979
			JP 55019203 A	09-02-1980
			JP 1338658 C	29-09-1986
			JP 55045634 A	31-03-1980
			JP 61001023 B	13-01-1986
			JP 1283318 C	27-09-1985
			JP 54086615 A	10-07-1979
			JP 60006326 B	18-02-1985
			AR 223471 A1	31-08-1981
			AU 526584 B2	20-01-1983
			AU 4260378 A	28-06-1979
			BR 7808456 A	07-08-1979
			CA 1118418 A1	16-02-1982
			CH 639960 A5	15-12-1983
			DD 142280 A5	18-06-1980
			DE 2854603 A1	05-07-1979
			DK 574678 A	23-06-1979
			ES 476217 A1	01-11-1979
			FR 2412536 A1	20-07-1979
			GB 2012763 A , B	01-08-1979
			GR 67311 A1	29-06-1981
			IT 1102751 B	07-10-1985
			NL 7812456 A	26-06-1979
			NZ 189187 A	19-12-1980
			PL 212037 A1	10-03-1980
			PT 68947 A	01-01-1979
			RO 76730 A1	22-06-1981
			SU 1153809 A3	30-04-1985
			SU 997608 A3	15-02-1983

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/11976

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4259489	A	TR 20595 A	19-02-1982
		US 4460403 A	17-07-1984
		YU 219882 A1	21-01-1983
		YU 219982 A1	21-01-1983
		YU 220082 A1	21-01-1983
		YU 220182 A1	21-01-1983
		YU 220282 A1	21-01-1983
		YU 304678 A1	21-01-1983
		BE 872944 A1	21-06-1979
		ZA 7807101 A	27-08-1980

WO 9828268	A	02-07-1998	
		AU 749658 B2	27-06-2002
		AU 5700798 A	17-07-1998
		BR 9714517 A	04-07-2000
		CA 2272305 A1	02-07-1998
		EA 2100 B1	24-12-2001
		EP 0951466 A2	27-10-1999
		HR 970705 A1	31-10-1998
		HU 0001232 A2	28-10-2000
		ID 22177 A	09-09-1999
		JP 2000511932 T	12-09-2000
		NO 993098 A	20-08-1999
		NZ 335583 A	30-03-2001
		PL 334305 A1	14-02-2000
		TR 9901343 T2	21-09-1999
		WO 9828268 A2	02-07-1998
		ZA 9711537 A	25-06-1998

WO 0043372	A	27-07-2000	
		AU 2623900 A	07-08-2000
		AU 3472400 A	07-08-2000
		BR 0007663 A	07-05-2002
		CA 2359113 A1	27-07-2000
		CA 2359115 A1	27-07-2000
		CN 1351592 T	29-05-2002
		CN 1346350 T	24-04-2002
		CZ 20012361 A3	12-12-2001
		EP 1144384 A1	17-10-2001
		EP 1144388 A1	17-10-2001
		HU 0201213 A2	28-12-2002
		JP 2002535314 T	22-10-2002
		JP 2002535317 T	22-10-2002
		NO 20013600 A	20-09-2001
		PL 350050 A1	21-10-2002
		WO 0043369 A1	27-07-2000
		WO 0043372 A1	27-07-2000
		US 2003125324 A1	03-07-2003
		US 2003144328 A1	31-07-2003
		US 2003139402 A1	24-07-2003
		US 6492372 B1	10-12-2002
		US 6479492 B1	12-11-2002
		ZA 200105314 A	27-03-2003

WO 0168591	A	20-09-2001	
		AU 5216801 A	24-09-2001
		BR 0109235 A	17-12-2002
		CA 2401502 A1	20-09-2001
		CN 1418187 T	14-05-2003
		CZ 20023422 A3	15-01-2003
		WO 0168591 A1	20-09-2001

INTERNATIONAL SEARCH REPORT

Information on patent family members

Application No

PCT/EP 03/11976

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0168591	A	EP 1265853 A1	18-12-2002
		HU 0300188 A2	28-06-2003
		JP 2003527368 T	16-09-2003
		NO 20024387 A	21-10-2002
		US 2003220367 A1	27-11-2003
		US 2001056100 A1	27-12-2001
